Welcome to the ALGO® 5 Newborn Hearing Screener

ALGO 5 Installation and Assembly Instructions

1. Preparation

Examine the shipping containers carefully upon receipt. If any of the boxex are damaged or the packing materials show signs of stress, notify the carrier and keep the shipping materials for the carrier's inspection.

The ALGO 5 includes these items packaged and shipped separately in 4 boxes::

- Cart base with Isolation Transformer
- Cart column (with cable guide protective covers included but not installed)
- Panel PC with Panel PC power supply
- Accessories box: keyboard, DSP Box, Preamp 5, ATA 5 cable, Sample Pack, label printer, and accessories pack: Equipment Check Kit, USB Cable, two PCA 5 cables, CD, power cord, and documentation package
- Optional items packaged separately: Barcode scanner, LAN Isolator, and page printer.

Note: Save shipping boxes and packing foam in the event that the screening module must be returned to the manufacturer.

Required Tools

- T-handle allen wrench, 3/16" (supplied, in Cart Base packaging)
- 90 degree allen wrench, 1/8" and 5/32" (supplied, in Cart Column packaging)
- 7/16" standard wrench or adjustable crescent wrench (not supplied)
- Phillips screwdriver (not supplied)

Hardware Supplied

- Socket head screws (#1/4-20 x 1 1/4") with lock washers & flat washers (4, in Cart Base packaging)
- KEP nuts (#1/4-20) – (2, in Cart Base packaging)
- Socket head cap screws (#10-32 x 1/2" SHCS) - (4, in Cart Column packaging)
- Pan head screws (#10-32 x 3/8" PHMS) - (4, packaged separately, taped to DSP bracket on Cart Column)
- Post cap plate – (1, in Cart Column packaging)
- Button head socket cap screws (#1/4-20 x 3/8" BHSCS) – (4, packaged with post cap plate)

Below is a view of the assembled ALGO 5:

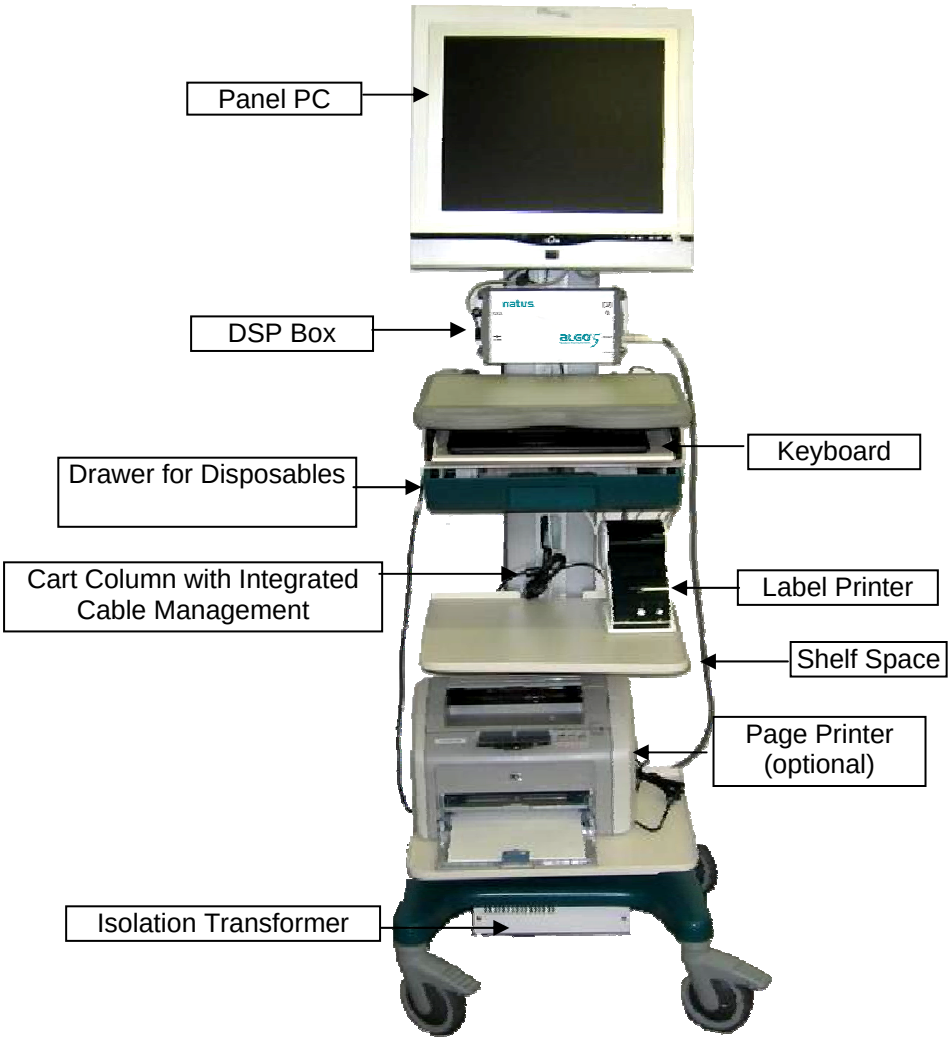

FIGURE 1: ALGO 5— front view

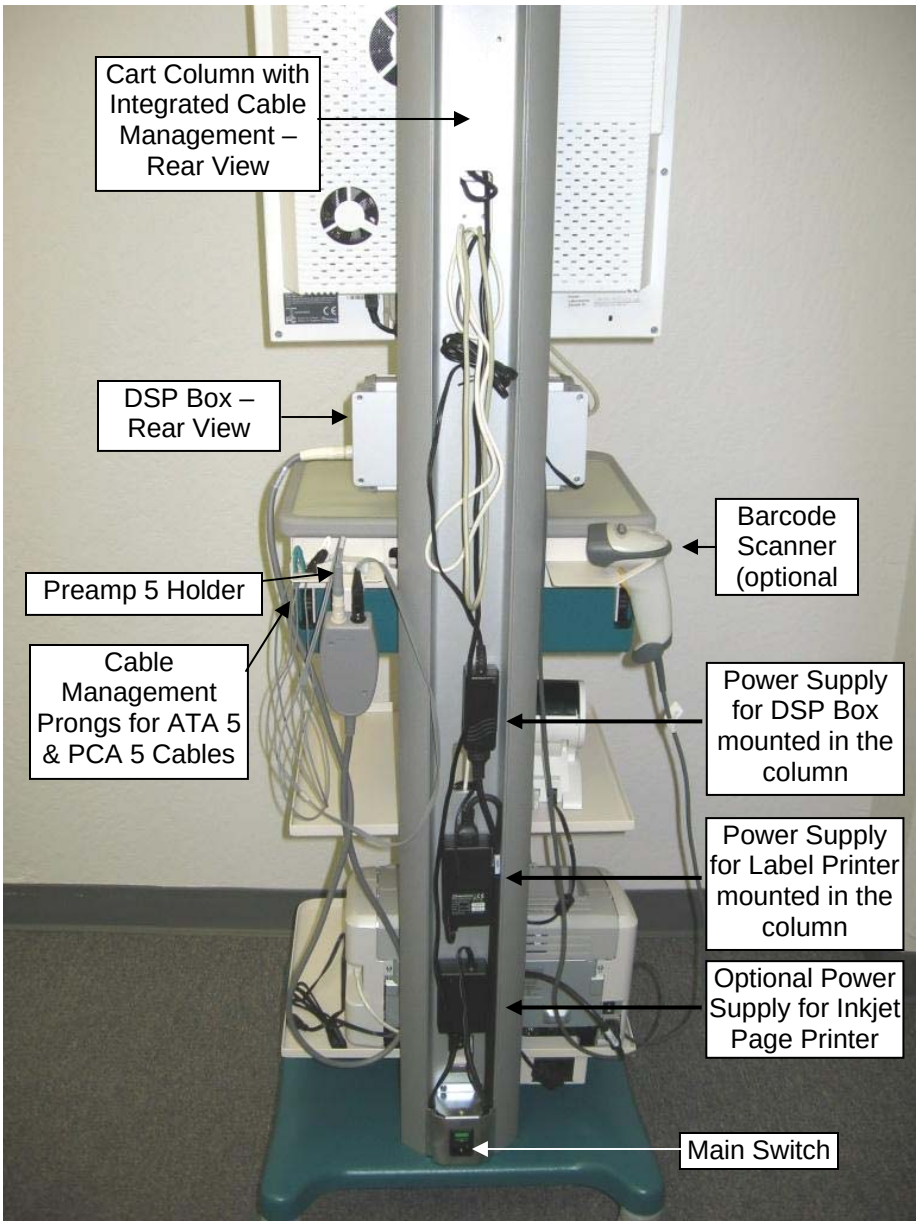
Cart Column with Integrated Cable Management – Rear View
DSP Box – Rear View
Barcode Scanner (optional
Preamp 5 Holder
Cable Management Prongs for ATA 5 & PCA 5 Cables
Power Supply for DSP Box mounted in the column
Power Supply for Label Printer mounted in the column
Optional Power Supply for Inkjet Page Printer
Main Switch

FIGURE 2: ALGO 5 — rear view

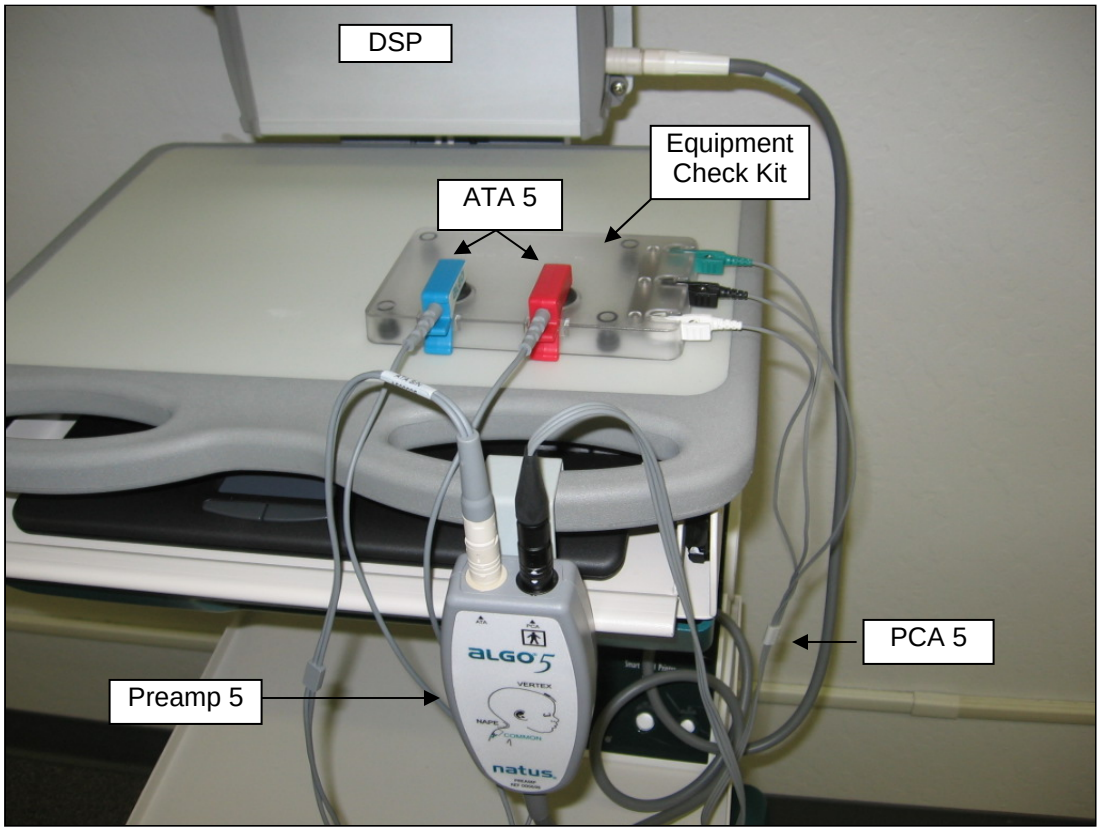

Figure 3: ALGO 5 Accessories

2. Mount the ALGO 5 Cart Column onto the Base

- Open shipping carton.
- Lift the cart base from its packaging. Set the cart base on the floor. Note the opening in the cart base that allows the column to be mounted to the base (FIGURE 4). Identify the hardware used to secure the column to the base: two KEP nuts with integrated lock washers, four ¼-20 x 1 ¼" socket-head cap screws with associated washers (FIGURE 5).

FIGURE 4: Mount Column onto the Base

FIGURE 5: Hardware used to secure the Column to the base

- Place protective cardboard or plastic on the floor, and carefully lay the cart column on the floor next to the base, with the flat side of the column (shelf side) facing down and the main switch facing up (see FIGURE 6 for orientation):

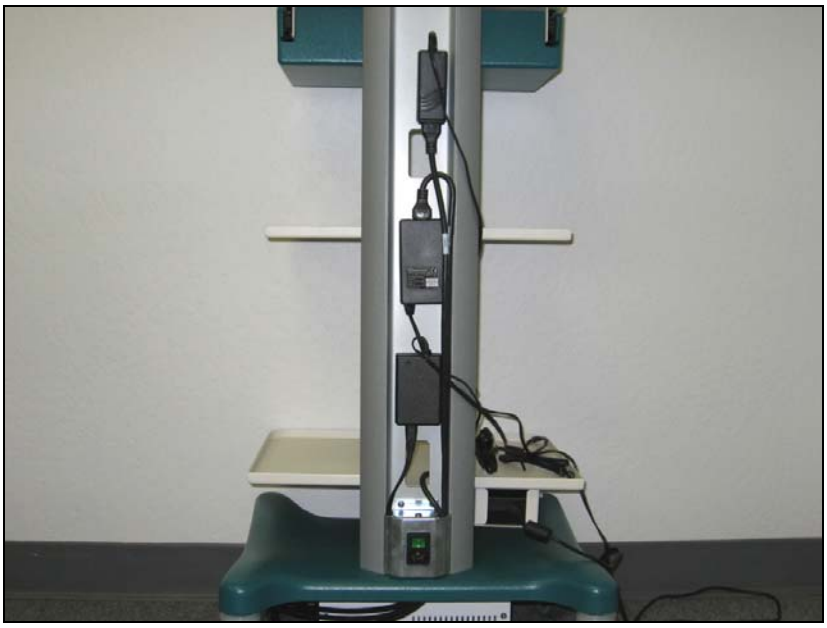

FIGURE 6: Cart from the back

- With the shelves facing down, align the base opening with the column. Carefully route the six cables hanging from the bottom of the cart column one at a time through the opening in the cart base. The opening allows the column to be fitted in only one way (see FIGURE 4). Slide the cart base onto the column's two alignment threaded studs (FIGURE 7). Note: packaging of cart may include foam and caps for the studs which will need to be removed prior to assembly.

  NOTE: The sixth cable is for the optional page printer. It is included but not shown in FIGURE 4 or FIGURE 7.

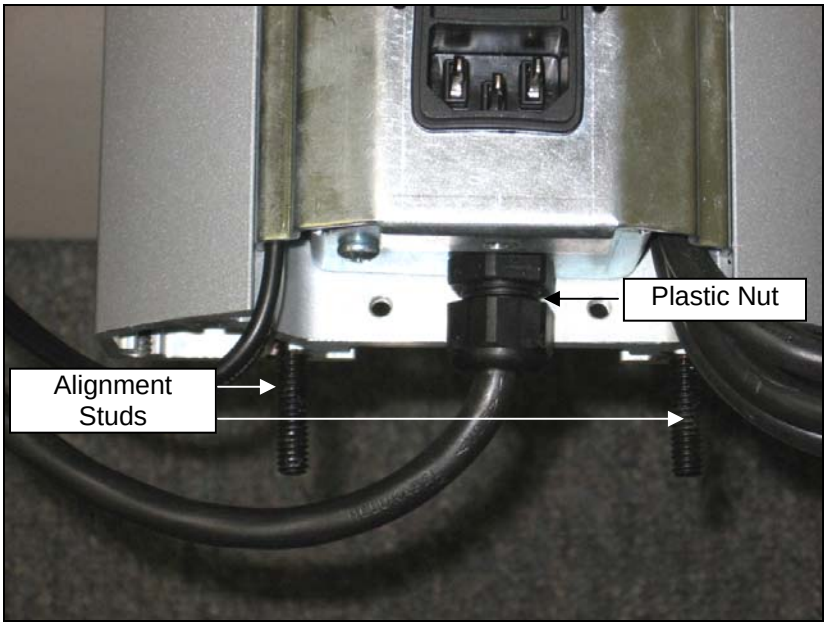

FIGURE 7: Detail Column alignment threaded studs

- Hand-tighten the plastic nut at the base of the main switch if it is loose (FIGURE 7). Insert nuts with integrated lock washers onto each of the two threaded studs with the lock washer towards the column, and then tighten the nuts using the 7/16” wrench. Tighten until snug, and then tighten at least an additional half turn so that lock washer bites into base metal. Insert the four socket head cap screws with washers and tighten using the T-handle 3/16” allen wrench (FIGURE 8 and FIGURE 9). Tighten until snug, then tighten at least another half turn.

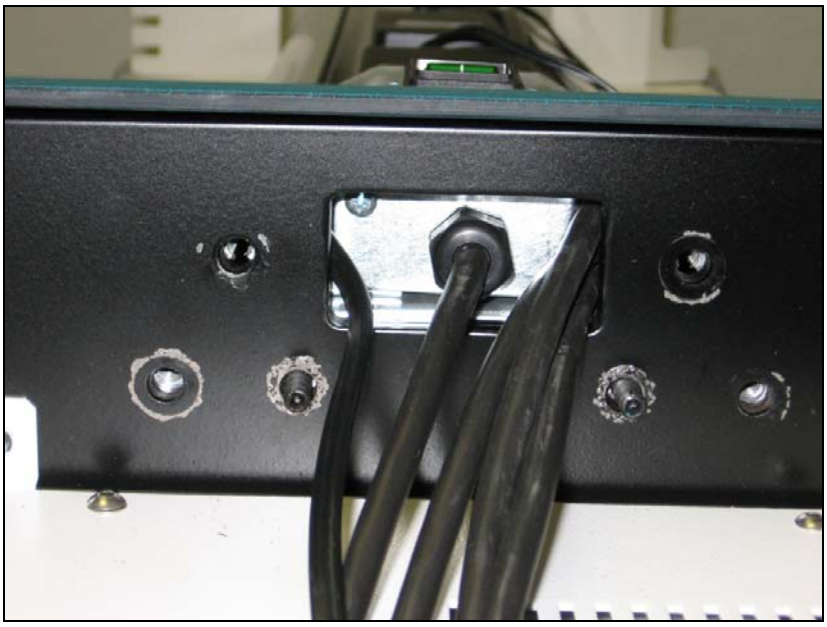

FIGURE 8: View from bottom 1

- Route the Cables

    o Install the inlet power cord from the Power Inlet to the Isolation Transformer (FIGURE 9 and FIGURE 10).

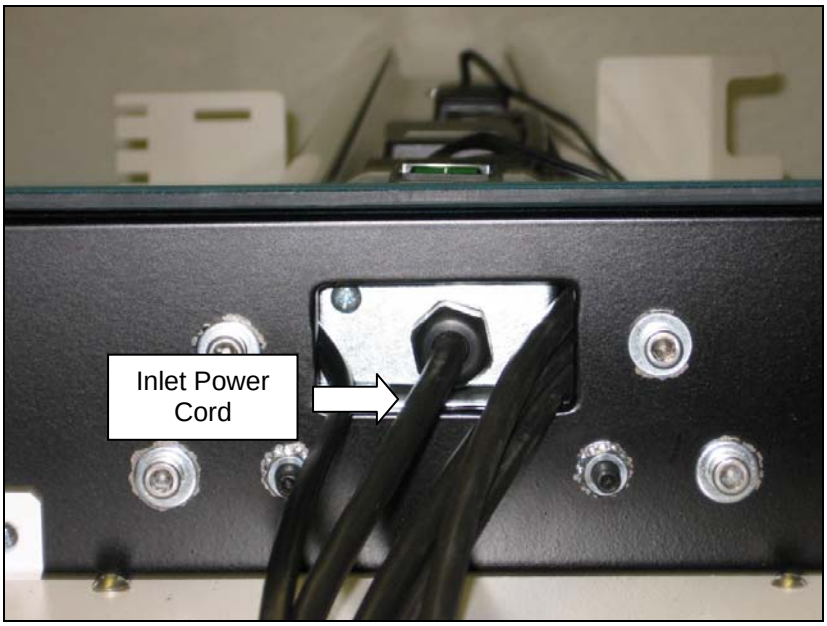

FIGURE 9: Inlet Power Cord Location

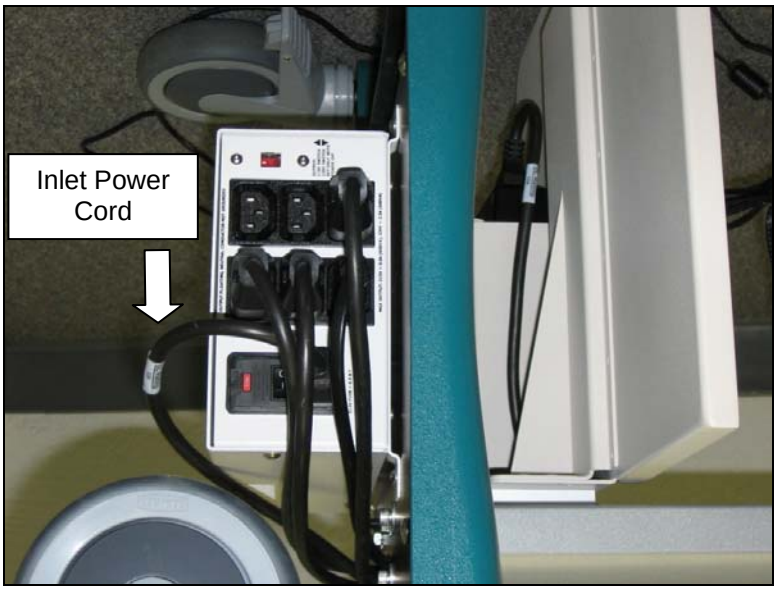

FIGURE 10: Route the cables

    o Insert remaining five cables in such a way that (1) the thinnest cable is inserted in the uppermost outlet and (2) for the remaining four cables, the shortest cable lengths are inserted into the nearest plugs (FIGURE 10).

3. Install the Panel PC power supply

Note: The Cart Column has two pre-installed power supplies, one for the DSP Box and one for the label printer.

- Unpack the power supply for the Panel PC (included in the Panel PC box).
- Locate the small box just under the lowest shelf (FIGURE 11).

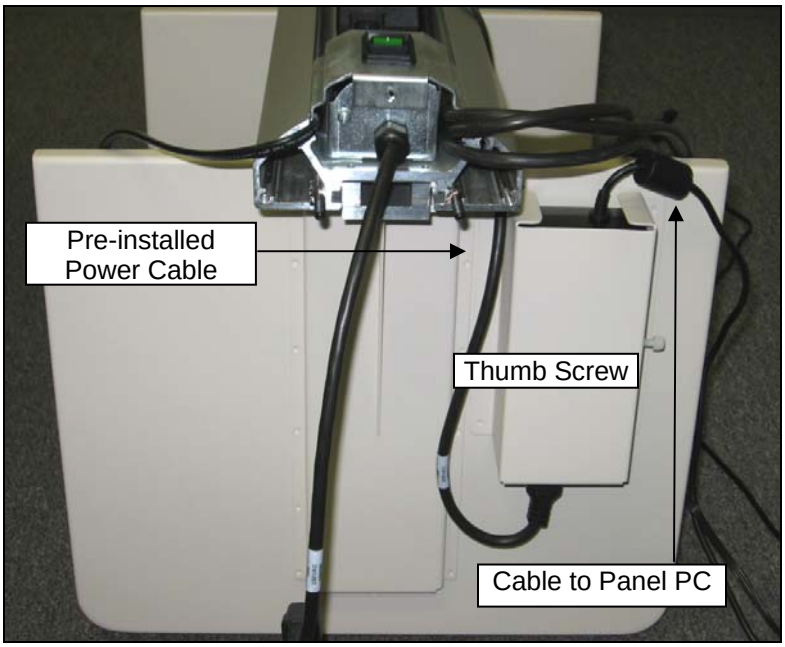

FIGURE 11: Lowest shelf as from seen underneath

- Loosen the attached thumb screw. Slide the power supply into the box from the front so that the end that connects to the cable from the transformer faces toward the front of the cart assembly. Route the cable that connects to the Panel PC through the lowest opening in the cart column to the back of the column (FIGURE 12), up along the back of the column. Do not route the output cord through the highest opening until the Panel PC is in place.

FIGURE 12: Route Panel PC power supply cable

4. Install the Panel PC

- Stand the assembled cart column upright on the cart base. Unpack the Panel PC and lay it face down on a flat surface. **CAUTION:** To avoid scratching the screen surface**, DO NOT** remove the protective film until the ALGO 5 is completely assembled.
- On the recessed flat surface at the back of the Panel PC, there are four screw holes used to mount the PC to the PC mount (FIGURE 14). Using the 90-degree 5/32" allen wrench provided (FIGURE 13), place socket head cap screws (#10-32 x 1/2" SHCS) into the top two inner holes and tighten until the screws stop, then loosen a full five rotations (1/8" space between screw and plastic).

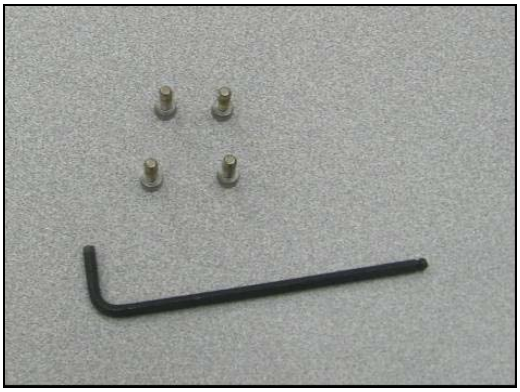

FIGURE 13: 90 degree 5/32" allen wrench provided

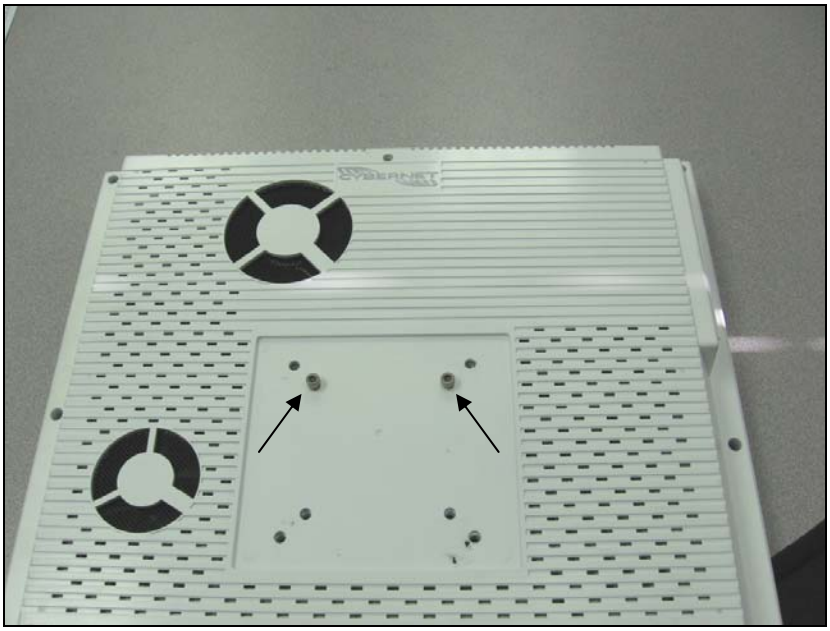

FIGURE 14: Back of Panel PC

- Be certain that the tilt tension screws that hold the PC mount to the cart column (the top two – FIGURE 16) are tightened securely to hold the pivot in place. Hang the Panel PC on the PC mount by sliding the two screws inserted in the previous step onto the slotted screw holes (FIGURE 15).

FIGURE 15: Back view showing 2 screws

- Tilt the Panel PC forward to facilitate access to the top screws, and tighten the two screws.

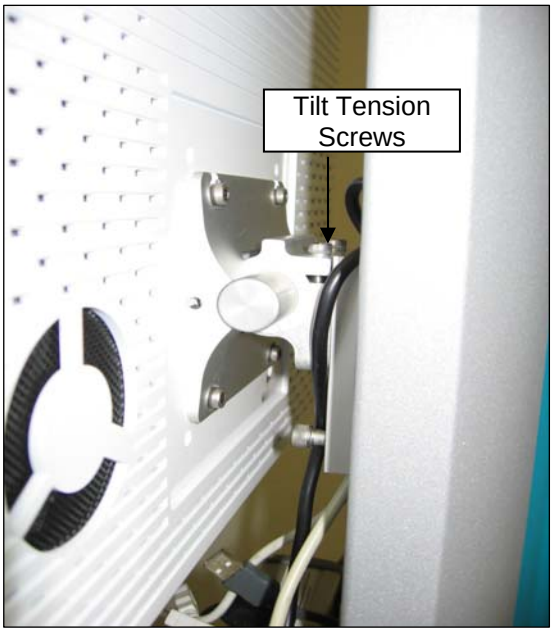

FIGURE 16: Side view showing 4 screws

- Tilt the panel PC up, and insert two addition screws into the bottom 2 holes on the PC holder, and tighten with a 90-degree allen wrench (FIGURE 16).

5. Install the Keyboard

- Unpack the keyboard and set aside. Pull the top drawer all the way out from beneath the writing surface to reveal the front of the cart column.
- The DSP mounting bracket must be temporarily moved to provide access for routing the printer cable to the Panel PC (see FIGURE 17). Using the 1/8" allen wrench, unscrew the two lower set screws that hold the mounting bracket to the cart column, slide the bracket up by about 3", and tighten the screws to hold the bracket in place.

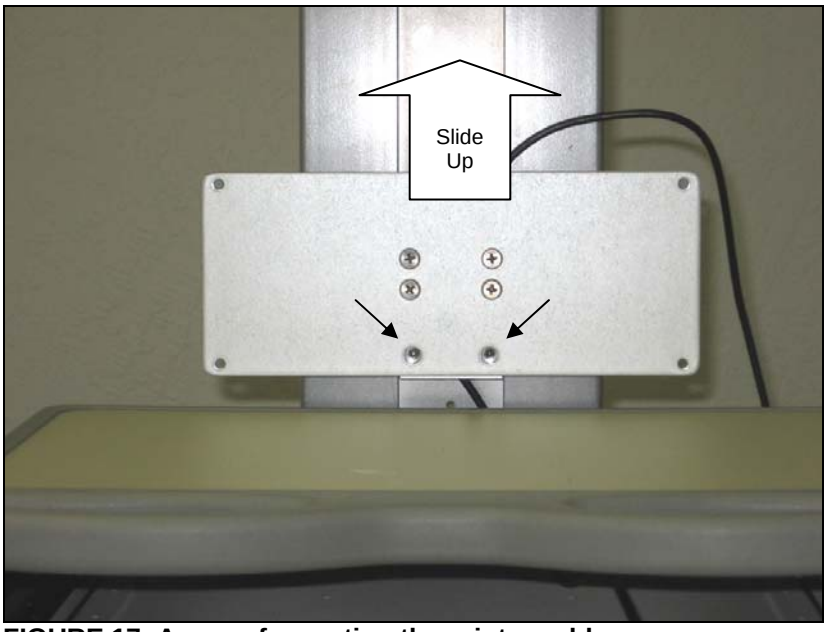

FIGURE 17: Access for routing the printer cable

- Place the keyboard on the top drawer. Route the keyboard cable out through the hole behind the tray that holds the keyboard and up through the cable routing guide on the cart column (FIGURE 18). Plug the keyboard cable into the Panel PC to any of the available USB ports on the bottom (FIGURE 20).

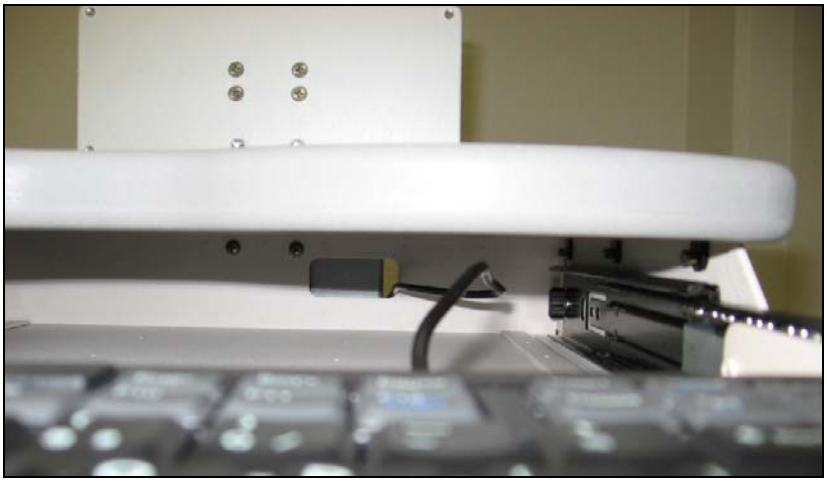

FIGURE 18: Routing the keyboard cable

NOTE: To facilitate routing the keyboard USB cable, the sliding keyboard tray may optionally be removed. To remove the tray, pull it out fully. Press the tabs on both sides simultaneously while pulling on the tray (FIGURE 19). The rails that hold the tray are greased, so clean-up may be required.

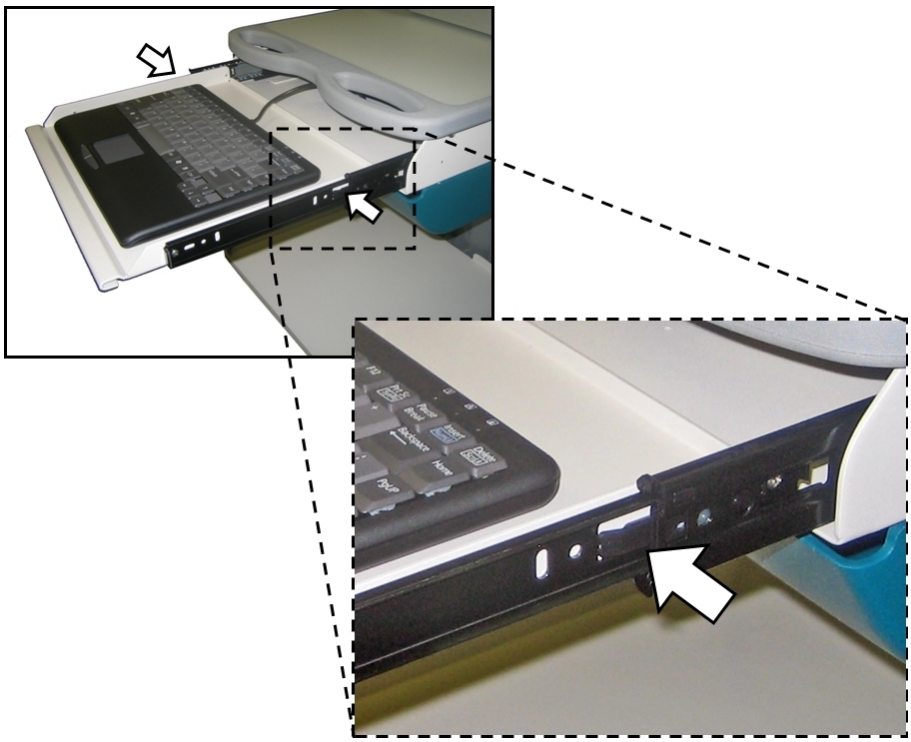

FIGURE 19: Removing the keyboard tray

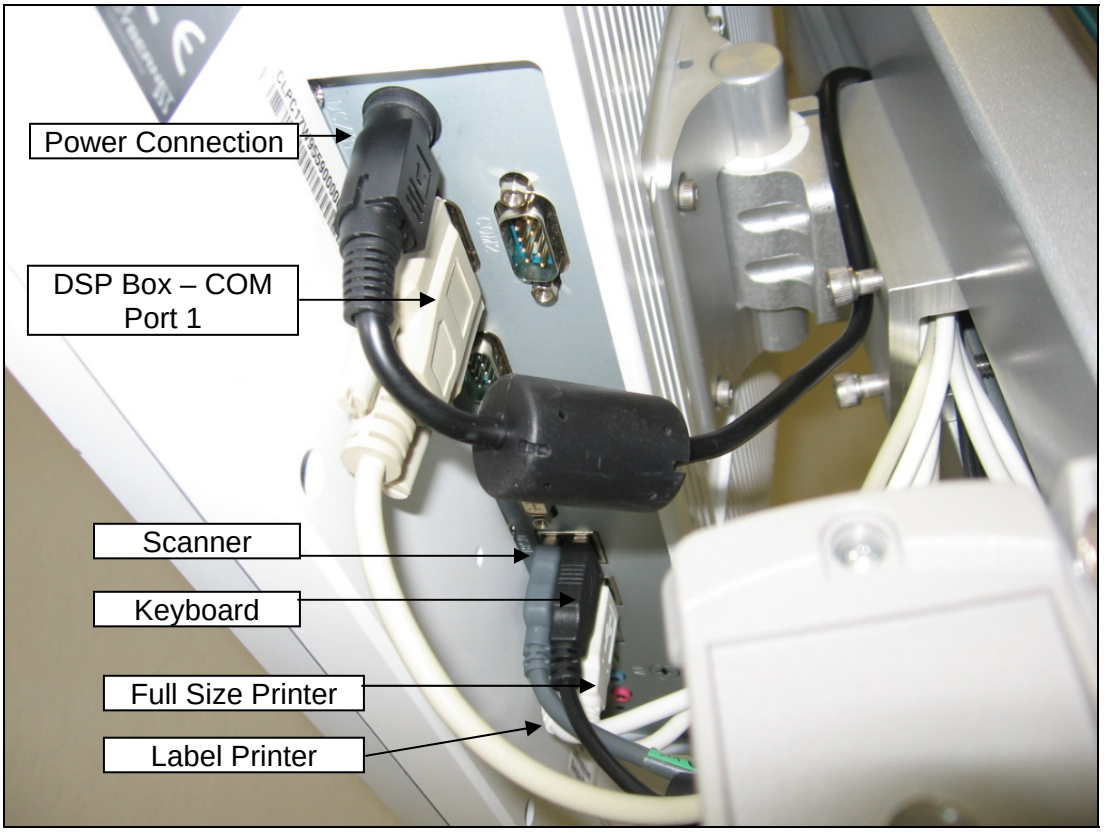

FIGURE 20: Panel PC Interface

- Return the keyboard tray and the top drawer to their original positions. Loosen the screws that secure the DSP mounting bracket, slide the bracket back down to its original position, and tighten BOTH screws to ensure ground contact (FIGURE 17).

6. Install the DSP Box

- Unpack the DSP Box. Remove the four screws provided in the bag attached to the DSP mounting bracket. Position the DSP Box so that the power receptacle (black cable in FIGURE 21) faces the left side of the cart as viewed from the front. Install the four screws to secure the DSP Box to the mounting bracket.

FIGURE 21: DSP Box to the mounting bracket

- After the DSP Box is installed, tighten the grounding screw (10x32) as shown in FIGURE 22 until the screw breaks the outer coating of the DSP box to come into contact with the aluminum. This will provide an electrical connection between the DSP mounting bracket and the DSP Box.

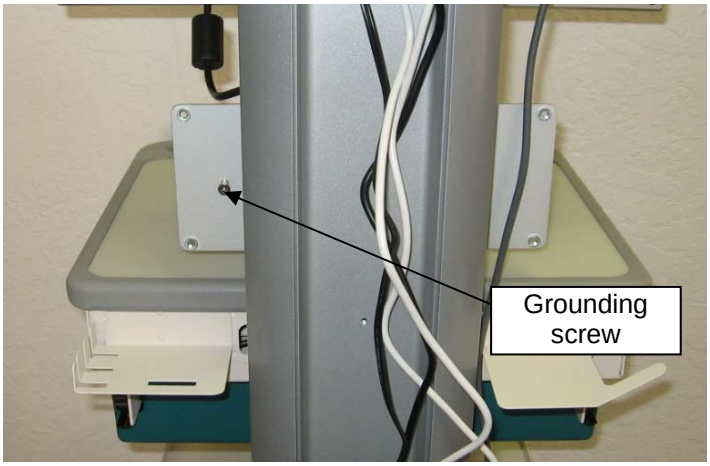

FIGURE 22: Grounding screw DSP Box

- From the back of the cart column, identify the DSP power cord coming from the top power supply mounted in the cart column (see FIGURE 23). Route this cable through the top opening in the cart column, down through the cable guide on the front of the column, and plug it into the DSP Box.

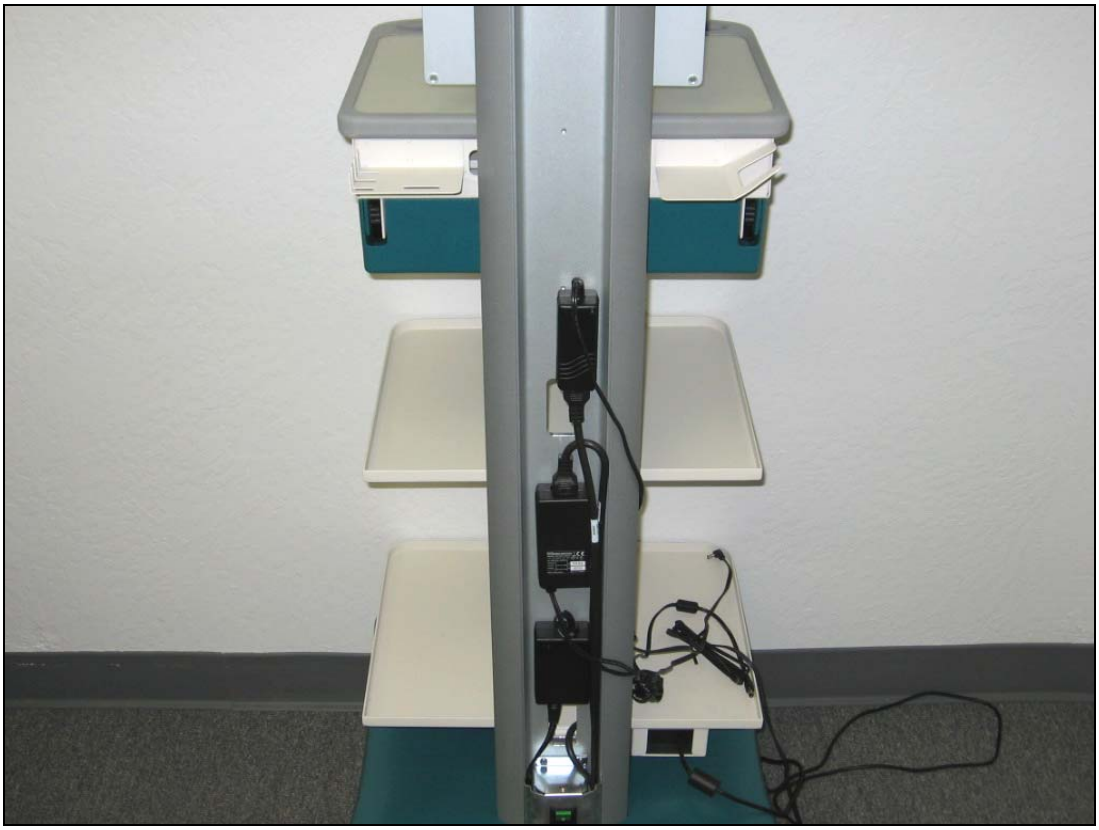

FIGURE 23: Back with open Column

- The communications cable that is attached to the DSP Box must be plugged into **COM Port 1** of the Panel PC (FIGURE 20).

7. Connect the Preamp 5 to the DSP Box

- Unpack the Preamp 5 (see FIGURE 3). Plug the Preamp 5 cable into the mating receptacle on the DSP Box. Note that the plastic connector for the preamp does have a key orientation; take caution not to bend pins. Align the arrow on the preamp connector with the arrow on the DSP Box receptacle. The connector is a locking push/pull design, so it should only be plugged/unplugged by grasping the outer body of the connector. Place the Preamp hook into the slot on the back right side of the writing surface (see FIGURE 2).

8. Attach the Patient Cable Assembly (PCA 5) and Acoustic Transducer Assembly (ATA 5)

Note: The connector for the PCA and ATA have a key orientation and are locking. Align arrows on connector and label on preamp, and plug/unplug only by grasping the outer body of the connector.

- Unpack the PCA 5 cable (see FIGURE 3). Attach the PCA 5 Connector to the PCA socket on the Preamp 5.
- Unpack the ATA 5 cable (see FIGURE 3). Attach the ATA 5 Connector to the ATA socket on the Preamp 5. Drape the red and blue coupler end of the cable over the cable management prongs near the Preamp 5 (FIGURE 2).

9. Install the Label Printer

- Unpack the Label Printer. Unpack the USB cable for the printer from the accessories box. Attach the USB cable into the Panel PC (FIGURE 20). Route the cable down to the middle cart shelf, using the front or back U-channel of the cart column.
- Route the power cable from the Label Printer power supply (see FIGURE 24) through the middle opening in the cart column to connect it to the Label Printer on the middle shelf. Connect the USB cable and the power supply cable into the Label Printer.

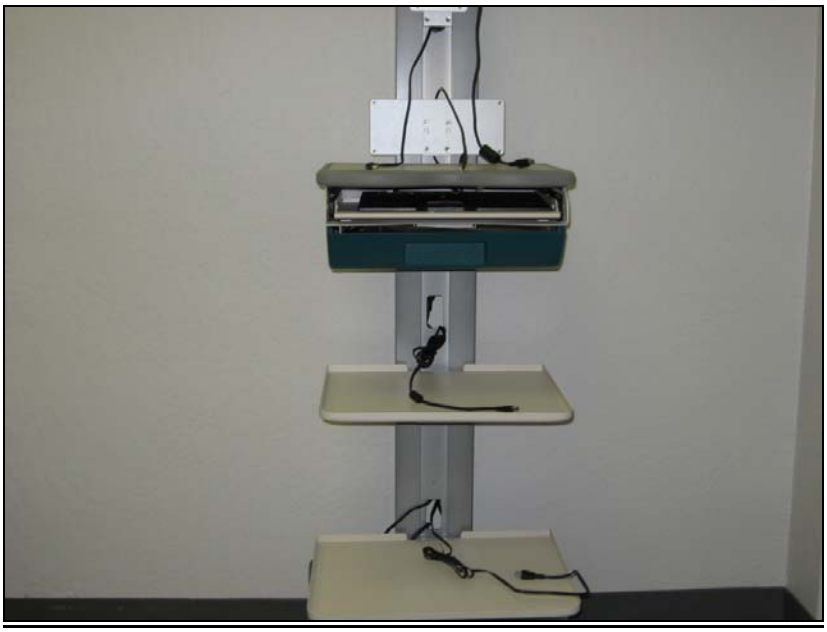

FIGURE 24: Routing Cable for Label Printer

- The label printer is delivered with two Dual Lock strips adhered to the base of the printer. Attached to each Dual Lock strip is a second strip to be adhered to the shelf. Remove the backing from that second set of Dual Lock strips. Locate the printer in the back right corner of the second shelf from the bottom (see FIGURE 25). Push the printer with the exposed sticky side of the Dual Lock onto the shelf.

FIGURE 25: Placement of Label printer

10. Add Optional Equipment if Provided
(If no optional equipment was ordered, skip to Section 11, "Closing the Cart Column")

10.1. Barcode Scanner

- Unpack the scanner. Insert the USB cord from the scanner into the Panel PC (see FIGURE 20). Place the scanner onto the scanner holder (see FIGURE 2)

Barcodes for the LS2208 Barcode Scanner

The following barcodes need to be scanned into the scanner to produce the appropriate line feed, remove sound after good decode, and reduce its volume upon start-up. They should be scanned in the following order.

- This barcode sets the barcode scanner to default settings (factory settings). Note: Default barcode only needs to be scanned if the settings of the barcode scanner are not in factory settings.

SET DEFAULTS

- The following three barcodes need to be scanned into the barcode scanner consecutively so that it will be equipped with the proper line feed.

SCAN OPTIONS

<DATA><SUFFIX>

ENTER

- This barcode disables the scanner of any sound after a successful decode.

Do Not Beep After Good Decode
(Disable)

- This barcode reduces the volume of the barcode scanner upon start-up.

Low Volume

10.2. **Full Size Printer – Inkjet** (external Power Supply required)

- Unpack the Inkjet Printer. Unpack the external power supply. Set the printer on the bottom shelf of the cart.
- Mount the external power supply to the cart column using double-sided sticky foam tape provided in the column (lowest of three power supplies pictured below). Route the cable that plugs into the printer through the bottom opening in the cart column and plug it into the printer. Insert the cable from the Isolation Transformer into the base of the printer power supply by connecting the female 2-prong plug. Secure the power supply with the supplied Velcro™ straps (FIGURE 26).

FIGURE 26: Mounting external Power supply Inkjet

10.3. Full Size Printer – Laser (no external Power Supply required)

- Unpack the Laser Printer. Set the printer on the bottom shelf of the cart.
- Route the 3-prong plug (the only unused connection from the Isolation Transformer) through the bottom opening in the cart column and plug it into the printer.

11. CLOSE THE CART COLUMN

When all of the above installation steps are completed, the covers that protect the cable system are snapped into place. After the cover is in place, install the Column Cap with the four button head cap screws ((#1/4-20 x 3/8" BHSCS) using the 5/32" allen wrench. FIGURE 27 shows the fully assembled ALGO 5 with protective covers in place.

FIGURE 27: ALGO 5 —rear view with column cover snapped in